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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/687,913	10/20/2003	Rudolf Wank	1033285-000019	2270
21839 7590 07/11/2007 BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404			EXAMINER SKELDING, ZACHARY S	
			ART UNIT 1644	PAPER NUMBER
			MAIL DATE 07/11/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/687,913	WANK, RUDOLF	
	Examiner	Art Unit	
	Zachary Skelding	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-35 and 40-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 14-35 and 40-44 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

1. Applicant's Election, with traverse, filed August 18, 2006, is acknowledged.

Claims 36-39 have been canceled.

Claims 40-44 have been added.

Claims 29 and 30 have been amended.

Claims 14-35 and 40-44 are pending.

2. Applicant has provisionally elected, with traverse, Group II drawn to a method of treating cancer comprising administering CAPRI cells wherein the cancer is breast cancer and wherein the method does not further comprise administration of CD3 activated T cells.

3. Applicant has traversed the Election of Species requirement on the grounds that the inventions are not independent or distinct and that the a search burden has not been established.

Applicant's argument is not found persuasive essentially for the reasons of record.

Therefore, the Election of Species requirement is maintained and made **FINAL**.

Nevertheless, in light of the amendment to claim 29 and upon reconsideration the previous Restriction Requirement is hereby **VACATED**. The following new Restriction Requirement is set forth. The Examiner apologizes for any inconvenience to applicant in this matter.

Species Election

4. This application contain claims directed to the following patentably distinct species of the claimed invention:

5. Applicant is required to elect a specific **agent or a single combination of agents that activate T-cells** that will be used in the first step of the in vitro method for making CAPRI cells or method of treating cancer with CAPRI cells, from, for example the following species disclosed on page 5, 1st and 2nd paragraphs of the instant specification and in claims 22, 25 and 26:

- a. anti-CD3 antibody,
- b. immobilized CD3,
- c. IL-2,
- d. IL-4,

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- e. IFN- γ .
- f. GMCSF,
- g. anti-B7 antibody,
- h. a lectin, **OR**
- i. a calcium ionophore.

AND

Applicant is **further required** to elect specific agent or a single combination of agents selected from, for example, a.-i. above, which will be present **after** the addition of naïve PBMC to the cells stimulated in the first step.

Methods comprising these agents are patentably distinct because these agents differ in their structures, and/or physiochemical properties, and do not share a common structure that is disclosed to be essential for common utility. Further, examination of these species would require different searches in the scientific literature. As such, it would be burdensome to search these species together.

If applicant believes these species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case.

Applicant is required under 35 USC 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held allowable.

6. **Applicant is further required** to elect the particular sources of PBMCs for the first and second PBMC method steps of the invention:

(A) the PBMC of each step are obtained from a single cancer donor, for example, as in claim 16 and 41, **OR**

(B) the PBMC used in the **first step** are obtained from a cancer patient and the PBMC used in the second step are from a donor that expresses a “**HLA haplotype of sufficient similarity to the HLA haplotype of the cancer patient**”, for example, as in claims 17 and 42, **OR**

(C) the PBMC used in the **second step** are obtained from a cancer patient and the PBMC used in the first step are from a donor that expresses a “**HLA haplotype of sufficient similarity to the HLA haplotype of the cancer patient**”, for example, as in claim 18, **OR**

(D) both PBMC are obtained from a single donor wherein said donor expresses an “**HLA haplotype of sufficient similarity to the HLA haplotype of a cancer patient**”, for example as in claim 20 and 42.

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Methods employing these different cells and/or steps are patentably distinct because these methods differ with respect to one or more method steps and/or endpoints. **For example, species (B), (C) and (D) differ from (A)** because determining if two PBMC populations have “sufficiently similar HLA haplotypes” entails first determining which particular “HLA haplotype” is expressed by the target cancer cell of interest and then finding a donor who has PBMC cells that have a “sufficiently similar HLA haplotype” *before* the method can be carried out. **Moreover, species (B) and (C) differ** in that the method of species (C) requires not only that one determine if the PBMC cell populations to be mixed have HLA haplotypes of sufficient similarity, but also if the PBMC of the first step will present an antigen, e.g., an HPV antigen as disclosed on page 7, bullet 2, that one would want to use to prime the PBMC of the second step for their intended use, e.g., to create T-cells that target HPV infected cells. **Lastly, species (D) differs from (B) and (C)** in that while the particular PBMCs used is determined by the requirement that the PBMCs express a “**HLA haplotype of sufficient similarity to the HLA haplotype of a cancer patient**”, once the requisite PBMCs are obtained the method is more predictable because the PBMCs to be mixed are of the same haplotype rather than a “sufficiently similar haplotype” which could encompass a wide variety of the exceptionally polymorphic and polygenic HLA loci, dependent upon what is meant by “sufficiently similar haplotype”.

Furthermore, the examination of the different method steps and/or endpoints would require different searches in the scientific literature. As such, it would be burdensome to search these species together.

If applicant believes these species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case.

Applicant is required under 35 USC 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held allowable.

7. Applicant is further required to elect one specific method from among the following choices:
 - a. a method that does **not** comprise administration of the CAPRI cells to a cancer patient;

OR

 - b. a method that does comprise administration of the CAPRI cells to a cancer patient.

These methods are patentably distinct because they differ with respect to one or more method steps and/or endpoints. For example, the CAPRI cells made by the method of claims could 14-28 could be used to identify antigens recognized by tumor specific T cells, which in turn could be used to make a cancer vaccine, rather than a method involving administering the CAPRI cells to a cancer patient.

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Further, examination of these species would require different searches in the scientific literature. As such, it would be burdensome to search these species together.

If applicant believes these species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case.

Applicant is required under 35 USC 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held allowable.

8. **If applicant elects (b) in part 7 above, applicant is further required** to elect one specific “cancer to be treated”, for example, from among those recited in claims 30, such as “melanoma” **OR** “breast carcinoma” **OR** “bowenoid papilloma”.

These pathological conditions are patentably distinct because they differ in etiologies and therapeutic endpoints. Furthermore, the examination of species would require different searches in the scientific literature. As such, it would be burdensome to search these species together.

If applicant believes these species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case.

Applicant is required under 35 USC 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held allowable.

9. Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, **and a listing of all claims readable thereon**, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

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Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which depend from or otherwise require all the limitations of an allowable generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

10. Applicant is advised that the response to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary Skelding whose telephone number is 571-272-9033. The examiner can normally be reached on Monday - Friday 8:00 a.m. - 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on 571-272-0841. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Zachary Skelding, Ph.D.
Patent Examiner
June 26, 2007

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7/3/07